



Llywodraeth Cymru
Welsh Government

Research briefing 04

Practical learning

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This is one of a series of briefing notes exploring key themes from the Welsh Government's Learner Voice Wales survey. It summarises the positive and negative views expressed by learners, and messages from research on effective delivery of practical learning. We've used this to suggest action points for providers to consider, and further resources for those interested in exploring the topic in more depth.

What did learners say?

- Many learners in further education (FE) and work-based learning say that practical work is the most enjoyable aspect of their programme.
- Learners appreciate the value of activities, resources and facilities which help them to understand 'real-world' industry requirements, including professional equipment and materials.
- There were a number of positive comments about lecturers, tutors and assessors who brought their industry or professional experience into the learning experience. Learners respect the knowledge and experience of staff who are able to give them a real understanding of what it's like to work in a professional environment, and what different career pathways might be available.
- Some FE students feel that the balance between theory and practical work on their course is not right and that they spend too little time doing 'hands-on' practical work. A number were frustrated that they spent the majority of their time doing assignments and essential skills.
- In work-based learning, some apprentices said that they value the integration of training into their work, and commented on their assessor's understanding of their job role and business. However, a similar number of learners felt that their apprenticeship training was **not** sufficiently reflective of their job role, and that training should be more tailored to reflect the requirements of their employer.
- In a number of cases, learners gave specific examples of where they had benefitted from practical content within their programmes, including:
 - opportunities to explore different fields of art and different media
 - experience of working with animals on agricultural courses (particularly where there were opportunities to learn about a range of animals)
 - understanding the practical aspects of childcare through work placements
 - working with clients, and the resulting improvements in confidence
 - going beyond the content of the course to explore particular areas of interest, individual projects and entrepreneurial activities.
- There were some examples, both in FE and work-based learning, where learners felt that they had not been given clear information up front regarding their course content and the amount of theory or written work that would be required.
- A few learners said that they had been given good advice on setting up their own businesses, while others had been stimulated by their course content to explore new career directions or higher education routes that they hadn't previously considered.

Effective strategies for delivering practical learning

The strategies below are drawn from a range of publications on practical learning, which in turn are based on extensive research into 'what works' in post-16 settings.

For further reading, see the 'Resources' section at the end of this briefing.

What is practical learning?

The Edge Foundation's *Mind the gap* (2010)¹, a review of practical and vocational education in the UK, offers the following definition.

'By practical education (PE), we mean the orchestration of learning experiences where the goal is to be able to work effectively with a particular kind of material to produce desired levels of products and performances...it enables children and young people to learn by applying ideas, imagination and knowledge to a practical problem or in a practical context.'

Mind the gap highlights research which shows that the main influence on learner outcomes and satisfaction is what teachers actually do, day by day, to develop learners' expertise and their positive attitudes towards employability. This is a very different model to traditional didactic teaching and requires different skills from practitioners.

Vocational learning generally blends practical and theoretical or 'academic' elements. As Learner Voice Wales feedback shows, practical content is usually highly valued by learners, and it can be frustrating for them to spend significant amounts of time on theoretical work which they cannot immediately connect to their current or intended field of work.

Great vocational education seeks to achieve:

1. **routine expertise:** being skilful in a chosen area
2. **resourcefulness:** being able to deal with the non-routine and unexpected
3. **functional literacies:** verbal, written, numerical, graphical and digital
4. **craftsmanship:** an aspiration for excellence and pride in a job well done
5. **business-like attitudes:** dealing with clients, suppliers and customers appropriately
6. **wider skills:** developing the dispositions of an effective lifelong learner.

*Pedagogic leadership*² (157 Group, 2013)

In their essay 'Is vocational education for the less able?'³ Guy Claxton and Bill Lucas make a powerful argument against the myth that practical trades and

crafts are suitable pathways only for the less able. On the contrary, vocationally skilled workers need to undertake cognitively demanding tasks such as planning, prioritising, calculating and responding to unexpected problems. Claxton and Lucas also point out that learners may have a number of reasons for choosing vocational routes: they might gain more enjoyment and satisfaction from hands-on activities than those that centre on reading, writing and abstract thinking; or they might be impatient to leave school and enter adulthood, and see vocational learning as offering them that opportunity more quickly.

Excellent practical teaching and learning

The Social Market Foundation's *Practice Makes Perfect* (2007)⁴ is a collection of essays looking at how the status of practical and vocational learning can be improved. It outlines the **critical features of effective practical learning**.

- Teachers are recognised as adept by what they can do, what they have done and how they do it.
- Learning is like being at work. Tasks set are authentic and performance is judged against professional benchmarks.
- Teachers model, challenge, coach and stretch.
- Learners hone their skills and understanding by tackling genuine problems.
- How learners behave is shaped by relationships with customers, colleagues and allied practices.
- Learners internalise professional standards, contrast these with amateur or cowboy practice, and recognise the ways in which standards might be legitimately varied.
- Learners become job-ready, work-ready, ready to be 'one of us'.

All of my tutors come from a varied background and have knowledge in differing areas of the trade, thus making for a very broad-skilled staff who come together as a good team.

Connecting learning and work

The Commission on Adult Vocational Teaching and Learning (CAVTL) report *It's about work...*⁵ was published in 2013. The report sets out a vision for a world-class vocational education and training system which provides learners with both initial routes into work and ongoing career development. At the centre of this vision is a **clear line of sight to work**, so that learners can:

- see why they are learning what they are learning.
- understand what the development of occupational expertise is all about.
- experience the job in its context.

In the best practice seen by CAVTL during its review, teachers and trainers situated theory in practical examples, using the 'real-life' knowledge that apprentices and trainees brought from their workplaces. A crucial role for vocational teachers involves replicating the way learners are assessed and given feedback on their performance in the workplace, so that they can build the resilience they need to cope with criticism and move on.

What I like about this course is that it is able to enhance my skills as an actor overall. It helps me to build my confidence as a person, allows me to take criticism in a way so it can improve my performance.

Honing learners' skills

The Edge Foundation's *Bodies of knowledge* (2010)⁶ report draws on research in the fields of cognitive science and neuroscience to explore how the mind and body work together to develop skills, knowledge and understanding. The researchers argue that traditional distinctions between 'academic' and 'practical' learning are false; all forms of education are about helping learners to develop knowledge and apply it to a particular context.

Bodies of knowledge identifies four **habits of mind** which work in harmony to enable learning (whether practical, academic or both).

- **Investigation:** effective learners are good at seeking and gathering information; they sift and evaluate what they see, and develop a trust in their ability to tell good evidence from weak.
- **Experimentation:** in this mode, people learn by adjusting things, tuning their skills and looking

for small improvements. They enjoy reviewing their 'work in progress' – whether it's a planting scheme, a menu or a musical composition – and seeing how they can revise it.

- **Imagination:** this includes the use of mental rehearsal and visualisation, creative 'daydreaming' to solve problems, and non-verbal prompts.
- **Reasoning:** the most traditional strategy, used in formal education can be applied in practical contexts too. Crucially, providers need to teach students to apply knowledge and disciplined thinking in the context of their chosen field; this could include, for example, thinking about the alternative explanations for a mishap, or working through the possible consequences of different courses of action.

I would make the learning more relevant to the careers in this industry so we can put this into practice when working in the tourism industry. It can be difficult to concentrate when being sat at a desk permanently.

Research⁷ by the University of Oxford on WorldSkills found that participating in **skills competitions** can help learners not only to enhance their professional skills, but to develop communication and interpersonal skills that allowed them to present their expertise more effectively. The benefits identified by the research are summarised below.

WorldSkills: benefits for competitors include:

- rapid development of technical skills through intense training, which helped competitors to gain precision and a better understanding of technical problems they faced
- development of soft skills including confidence, self-reflection, time management and communication
- career progression, and awareness of opportunities through networking
- entrepreneurship skills (almost a quarter of the competitors interviewed became self-employed).

[SKOPE, University of Oxford \(2013\)](#)⁸

However, the researchers also highlighted the need for better support for competitors to help them adjust to life post-competition, and recommended that clearer expectations should be set for competitors and their training managers.

Action plan

- ➔ *Pedagogic leadership* sets out a useful four-stage process which leaders can use to develop their own vision for 'good to great' vocational learning.
- ➔ The literature evaluated for this briefing suggests that giving learners the kind of feedback they would receive in the workplace can help them to develop resilience and self-awareness.
- ➔ Review vocational learning programmes, advice and guidance to ensure a clear 'line of sight' to work, following the principles laid out in CAVTL's *It's about work...*
- ➔ Consider how to give clear, up-front information to learners on course content, including the balance between theoretical and practical learning. Some learners do not realise how much of their time will be spent on written assignments and other theory work, and do not think that this work is sufficiently relevant to the careers they are interested in.
- ➔ Ensure that programmes at **every** level include practical content that will enthuse and motivate learners. Estyn's 2013/14 annual report highlighted the fact that learners on entry level courses in FE – particularly those from deprived backgrounds – spend much of their time on remedial activities, and have limited access to a range of vocational opportunities.
- ➔ Providers who are involved in skills competitions should consider how they support both learners and staff, and how they evaluate the impact of participating.

Resources

- ***Mind the gap***⁹ (Edge Foundation, 2010)
A review of practical and vocational education (PVE) in the UK and beyond, including recommendations on improving the recognition and esteem of PVE.
- ***It's about work...***¹⁰ (Learning and Skills Improvement Service, 2013)
The Commission's first report sets out key principles and recommendations for achieving a 'world-class' vocational education system.
- ***Pedagogic leadership***¹¹ (157 Group, 2013)
Commissioned by the 157 Group of colleges, this guide explores practical implications for leaders who aspire to deliver outstanding vocational learning.

The Edge Foundation is a charity dedicated to raising the status of technical, practical and vocational learning.
www.edge.co.uk

Find a Future brings together UK and WorldSkills competitions. Resources on its website include guidance on embedding skills competition activities into apprenticeships and vocational learning.
www.findafuture.org.uk

Learner Voice Wales

Learner Voice Wales is the Welsh Government's annual survey of learners in further education, work-based learning, adult community learning and Welsh for Adults. Launched in 2013, it seeks learners' views on a range of topics relating to:

- information, advice and guidance
- support
- teaching and learning
- well-being and responsiveness
- Welsh-medium learning
- overall satisfaction.

Learners are also asked to comment on what they like best about their learning provider, and what they think could be improved.

A summary of the survey is available at <http://gov.wales/learnervoice>.

For more information, please e-mail post16quality@wales.gsi.gov.uk.

¹ *Mind the gap* (Edge Foundation, 2010)

<http://learning.gov.wales/resources/browse-all/mind-the-gap-edge-foundation-report/?lang=en>

² *Pedagogic leadership* (157 Group, 2013)

www.157group.co.uk/sites/default/files/documents/157g-115-pedagogicleadership.pdf

³ 'Is vocational education for the less able?' by Guy Claxton and Bill Lucas in *Bad Education: Debunking Myths in Education*, eds. Philip Adey and Justin Dillon (Open University Press, 2012)

⁴ *Practice Makes Perfect: The Importance of Practical Learning* (The Social Market Foundation, 2007)

www.smf.co.uk/wp-content/uploads/2007/03/Publication-Practice-Makes-Perfect-The-Importance-of-Practical-Learning.pdf

⁵ *It's about work...* (Learning and Skills Improvement Service, 2013)

<http://learning.gov.wales/resources/browse-all/its-about-work-enabling-excellent-adult-vocational-teaching-and-learning/?lang=en>

⁶ *Bodies of knowledge* (Edge Foundation, 2010)

www.edge.co.uk/media/16982/bodies_of_knowledge.pdf

⁷ *Benefits of Developing Vocational Excellence through Skills Competitions: Research Brief* (SKOPE, University of Oxford, 2013)

<http://vocationalexcellence.education.ox.ac.uk/wordpress/wp-content/uploads/2014/02/Project-3-Research-brief.pdf>

⁸ *Benefits of Developing Vocational Excellence through Skills Competitions: Research Brief* (SKOPE, University of Oxford, 2013)

<http://vocationalexcellence.education.ox.ac.uk/wordpress/wp-content/uploads/2014/02/Project-3-Research-brief.pdf>

⁹ *Mind the gap* (Edge Foundation, 2010)

<http://learning.gov.wales/resources/browse-all/mind-the-gap-edge-foundation-report/?lang=en>

¹⁰ *It's about work...* (Learning and Skills Improvement Service, 2013)

<http://learning.gov.wales/resources/browse-all/its-about-work-enabling-excellent-adult-vocational-teaching-and-learning/?lang=en>

¹¹ *Pedagogic leadership* (157 Group, 2013)

www.157group.co.uk/sites/default/files/documents/157g-115-pedagogicleadership.pdf